

IN THE CLAIMS:

The following listing of claims replaces all prior listings of claims in the present application:

Listing of Claims:

1. Cancelled
2. (Currently Amended) The soldering structure nest as defined in claim **[[1]]** 13, wherein the cone angle is between 50° and 90°.
3. Cancelled
4. Cancelled
5. (Currently Amended) The soldering structure nest as defined in claim **[[4]]** 13, wherein the metal is copper, a copper alloy, or silver.
6. (Currently Amended) The soldering structure nest as defined in claim **[[1]]** 13, wherein the bus bar is a stand-alone bus bar without contact, at least adjacent the conical bore, with a solid insulating material.
7. (Withdrawn) A method of providing a soldering a terminal lead to a bus bar made entirely of a good electrical and heat-conducting material, comprising: providing a bus bar formed entirely of a good electrical and heat-conducting material with an aperture formed by a conical bore which is perpendicular or approximately perpendicular to opposite first and second parallel surface planes of the bus bar, which extends between the two surface planes, whose cone angle is at least 30°; and with the apex of the conical bore being oriented toward the first surface plane of the bus bar and with the conical bore terminating in a circular aperture, whose diameter is slightly greater than the diameter of the terminal lead to be soldered to the bus bar, at the second surface plane; introducing the terminal lead into the aperture from the first surface plane of the bus bar; and applying soldering material to the aperture and

temporarily contacting the soldering material with a source of heat at the second, opposite parallel surface plane of the bus bar to solder the terminal to the bus bar within the conical bore.

8. (Withdrawn) The method as defined in claim 7, wherein the cone angle is between 50° and 90°.

9. (Withdrawn) The method as defined in claim 7, wherein the terminal lead is part of a semiconductor device.

10. (Withdrawn) The method as defined in claim 7, wherein the bus bar consists of metal.

11. (Withdrawn) The method as defined in claim 10, wherein the metal is copper, a copper alloy, or silver.

12. (Withdrawn) The method as defined in claim 7, wherein the bus bar is a stand-alone bus bar without contact, at least adjacent the conical bore, with a solid insulating material.

13. (New) A soldering structure comprising:

a bus bar made of a good heat conducting metal and having a pair of parallel planar surfaces with a predetermined uniform thickness defining an aperture extending across said thickness between said surfaces, said aperture having a conical wall with a central axis substantially normal to said planar surfaces and having a cone angle at least 30°, wherein said aperture has a smaller circular opening at a first one of said planar surfaces and a larger circular opening at a second opposite one of said planar surfaces; and

a terminal lead of a semiconductor device inserted in said aperture of said bus bar through said smaller circular opening so as to extend substantially along said axis of said conical aperture between said first and second planar surfaces,

with said semiconductor device facing said smaller circular opening and said first planar surface, and with the terminal lead ending at or beyond said second surface, wherein at most a small gap is provided between said terminal lead and said smaller circular opening; and,

a soldering material substantially filling the space formed between said terminal lead and said smaller circular aperture, said soldering material being bonded both to said terminal lead and to said conical wall of said aperture.

14. (New) The soldering structure as claimed in claim 13, wherein the surface of said conical aperture wall is substantially larger than the surface of said terminal lead between said planar surfaces.